

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1-12. (canceled).

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13. (currently amended) A method for representing a subject imaged in a first volume data set, comprising:

generating a second volume data set in which the volume elements of the first volume data set are at least one of depth-dependently

10 modulated and coded parallel to a main observation direction along
a coordinate axis of running into the first volume data set; and

applying a volume rendering to the second volume data set; and
outputting, on a display, an image based on the second volume data set.

15 14. (previously presented) The method according to claim 13, further comprising utilizing a transfer function for activating a depth-dependent 3D representation.

15. (previously presented) The method according to claim 14, wherein the transfer function for the volume rendering has the form of a canted bar.

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16. (previously presented) The method according to claim 14, wherein the transfer function is stored in a lookup table.

25 17. (previously presented) The method according to claim 13, further comprising controlling the volume rendering with a navigation system.

18. (previously presented) The method according to claim 13, further comprising manually controlling the volume rendering with a computer input apparatus.

19. (previously presented) The method according to claim 13, further comprising
5 applying texture mapping to the first or second volume data set.

20. (previously presented) The method according to claim 19, wherein the texture mapping is performed according to a shear warp method.

10 21. (previously presented) The method according to claim 19, wherein the texture mapping is implemented with multi-textures.

22. (previously presented) The method according to claim 19, wherein the texture mapping is implemented with hardware of a graphics card.

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23. (previously presented) The method according to claim 13, further comprising interpolating volume elements of at least one of the first and second volume data set.

20 24. (previously presented) The method according to claim 13, further comprising filtering at least one of the first and second volume data set.

25. (previously presented) The method according to claim 24, further comprising buffering at least one of a result of the filtering of the first volume data set and a result of the filtering of the second volume data set.

26. (previously presented) The method according to claim 17, further comprising:

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storing beforehand segmented partial subjects with a color value that corresponds to a specially-reserved range of a lookup table, such that they can be illuminated with their own coloring relative to their surroundings, relative to other subjects of a described volume rendering, and can thereby be specifically addressed with the navigation system.